

Sector 7 operation update

Eric Dufresne, TRR group meeting, Jun. 15, 2010

- The 7ID and 7BM start up were slowed down a bit by IT problems, but these were resolved within the 1st shift.
- The 7ID remote shutter interface was upgraded this shutdown by Dohn Arms to make the interface identical to the 7BM interface.
- Harold Gibson procured and installed a new video multiplexer to replace many CRT monitors near 7ID-D. The new interface is identical to the one installed on 7BM-B, providing a security camera style interface. More will be deployed.
- Progress on the interlocks for the new laser R&D lab is nearly completed. The D020 electronics laboratory will house the Bldg 401 3rd floor Ti:Sapphire laser with a new Ti:Sapphire oscillator.
- Harold expects the chilled water system for the new laser to be installed in 1-2 weeks, and the laser curtain delivery is expected by the end of July.
- A new plastic curtain will soon separate the wet lab in an area where goggles are required only near the sinks and fumehood. Part of the equipment from the electronics lab was moved inside the wet lab to make room for the new laser system. The curtain should be installed in a week.
- 7ID is taking part in the NX National School for the first time, and students will be taking beam in 7ID-C June 17-19, 2010.
- The 7ID 2010-2 schedule was sent to 7ID users by Don Walko.

7ID operation (continued)

- Harold Gibson added a BNC patch panel on the downstream wall of 7ID-B.
- The streak camera ran two experiments in June with the laser at 5 kHz, something that was near impossible before. The new beamline optics (Be lenses) and chopper worked well. Major improvement is needed for the diffraction setup, but both weeks collected good data.
- Dohn Arms moved to Bldg 401 last week where is has taken a beamline controls position in the APS BCDA group. He is the new BCDA contact for 7ID and 7BM.
- Paul Evans's group published a PRL article in May: [Piezoelectricity in the Dielectric Component of Nanoscale Dielectric-Ferroelectric Superlattices](#), Ji Young Jo, Rebecca J. Sichel, Ho Nyung Lee, Serge M. Nakhmanson, Eric M. Dufresne, and Paul G. Evans, Phys. Rev. Lett. **104**, 207601 (2010).
- B. Adams just wrote a News and Views article in "Physics"
<http://physics.aps.org/articles/v3/50?referer=apsphysicspage>

7BM operation

- The 7BM beamline empty BESSRC-style monochromator tank was removed from 7BM-A and given to 6BM, the new optics beamline led by AL Macrander. On 6BM, the monochromator will be assembled and commissioned.
- The 7BM beamline is back in operation after this major vacuum change.